OIPE

RAW SEQUENCE LISTING

DATE: 06/19/2001

PATENT APPLICATION: US/09/870,113

TIME: 12:07:21

Input Set : A:\SEQLIST MSC 31.txt

Output Set: N:\CRF3\06192001\1870113.raw

ENTERED

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              Hilbun, Erin
              Potter, David
      8 <120> TITLE OF INVENTION: Novel Human Mitochondrial Proteins and Polynucleotides
Encoding the
     11 <130> FILE REFERENCE: LEX-0182-USA
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/870,113
C--> 13 <141> CURRENT FILING DATE: 2001-05-30
     13 <150> PRIOR APPLICATION NUMBER: US 60/207-933
     14 <151> PRIOR FILING DATE: 20,00-05-30
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                                                                               180
     29 coggactacg aggogotgoo ggotggagoo actqtcacca cqcacatqqt qqcaqqoqoo
                                                                               240
     30 gtggcaggga teetggagea etgegtgatg taccecateg actgegteaa gacceggatg
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     31 cagagtetae ageetgaeee agetgeeege tategeaatg tgttggagge eetetggagg
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                                                                               600
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                                                                               780
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    40 ccactggacg tttgcaaaac actgetcaac acccaggagt cettggettt gaactcacac
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	Lys	Thr	Arg	Met	85 Gln	Ser	Leu	Gln	Pro	90 Asp	Pro	Ala	Ala	Arg	95 Tyr	Arg	
65	•	17- 7		100		_	_	_	105		_	m 1		110	_	_	
67			115					120	Ile				125				
68 69	Arg	Pro 130	Met	Arg	Gly	Leu	Asn 135	Val	Thr	Ala	Thr	Gly 140	Ala	Gly	Pro	Ala	
		Ala	Leu	Tyr	Phe		Cys	Tyr	Glu	Lys	Leu	Lys	Lys	Thr	Leu	Ser	
	145					150		,			155					160	
72 73	Asp	Val	Ile	His	Pro 165	Gly		Asn	Ser	His 170	Ile	Ala	Asn	Gly	Ala 175	Ala	
	Gly	Cys	Val		Thr	Leu	Leu	His	Asp	Ala	Ala	Met	Asn		Ala	Glu	
75 76	170.1	170.7	T	180	7	14 t-	01	37±±	185	3	G	D		190	_	** 3	
77			195					200	Tyr				205				
78 79	Thr	Asp 210	Cys	Val	Arg	Ala	Val 215	Trp	Gln	Asn	Glu	Gly 220	Ala	Gly	Ala	Phe	
		Arg	Ser	Tyr	Thr		Gln	Leu	Thr	Met		Val	Pro	Phe	Gln		
	225	***	51. .		m1	230	~ 3	-1	_		235			_	_	240	
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83 84	Δνα	λκα	Тиг	λαη	245 Bro	Sor	cor	Hic	Val	250	Cor	C1	λ 1 a	Crra	255	C1	
85	AIG	AIG	тут	260	PIO	ser	ser	птэ	265	ьеи	ser	сту	АТа	270	Ala	GIY	
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89		290					295					300		_			
		Thr	GLY	Met	Ala		Ala	Phe	Arg	Thr		Tyr	Gln	Val	Gly		
	305 Val	Thr	λla	TT TT	Dho	310	C117	Wal	Gln	7 l a	315	1751	т1.	M.r.	Cln	320	
93	VUI	1111	AIG	1 Y I	325	AIG	СТУ	Val	GIII	330	Ary	Val	116	тут	335		
	Pro	Ser	Thr	Ala		Ala	Trp	Ser	Val		Glu	Phe	Phe	Lvs			
95				340			L		345	-1-	010			350	- 1 -		
96	Ile	Thr	Lys	Arg	Gln	Glu	Glu	Trp	Arg	Ala	Gly	Lys					•
97								360									
				NO:													
				TH: 5													
				DNA			nior								•		
				ENCE:		10 50	prer	15									
						raa t	acto	racac	at. at	aacc	iaaac	י ממכ	caac	agac	aggo	acceggg	60
106	cgg	agco	ccg	ggga	gtcq	igc c	ctqc	tgga	ic do	gtac	ictac	ago	adda	cqt	ddad	ccggggg	120
107	gcc	ggcg	gcg	ggga	ggcc	gg c	gcct	gcag	gg cc	cccc	gtac	gac	aaga	itcc	ggac	teegge	180
108	ccg	gact	acg	aggo	gctg	lcc č	gctg	gago	c ac	tgto	acca	ı cgc	acat	ggt	ggca	iggegee	240

RAW SEQUENCE LISTING DATE: 06/19/2001 PATENT APPLICATION: US/09/870,113 TIME: 12:07:21

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	<211> E			93													
				hom		n i . n .	_										
	<213> 0 <400> S				o saj	ртеп	5										
	Met Glu				λνα	C1 v	λla	C111	C1,,	Wal	λla	C117	C111	Dro	א ז ה		
123		ьeu	GIU	5 5	Arg	GIY	Ата	СТА		Val	Ата	СТУ	СТУ		Ald		
		Dro	C1**	-	Cor	Dwo	C1	C1	10	7 J -	т он	T ou	7 an	15	Пъъ		
125	Ala Gly	PIO	20	AIG	ser	PIO	СТУ		ser	Ата	ьец	ьец		GTĀ	ттр		
	Lou Cln	λκα		Wa I	C1 ++	7 ~~	C1.	25	C1	C1	C1	C1.,	30	C1	7 l n		
127	Leu Gln	35	Gry	val	GIY	Alg	40	нта	GIY	СТУ	GTA	45	ніа	GLY	Ald		
	Cys Arg		Dro	Wa I	7 ~~	Cln		Dro	Nan	Con	C1,,		7 an	Шттээ	Clu		
129	50	PIO	PIO	Val	Arg	55	ASP	PIO	ASP	ser	61 60	PIO	ASP	тут	GIU		
	Ala Leu	Dro	λΊэ	Clv	λla		Wa l	Ψh.∽	Thγ.	піс		Wa l	λla	C111	7 l n		
131		FIO	на	СТУ	70	1111	vai	1111	1111	75	met	val	Ата	GIY	80		
	Val Ala	Glv	Tla	T.011		Uic	Cve	Wa 1	Mot		Dro	Tlo	λan	Cvc			
133	vai mia	GIY	110	85	GIU	1113	Cys	Vul	90	тут	FIO	110	изъ	95	Vai		
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135	Ljb IIII	1119	100	0111	DCI	пси	0111	105	W.D.P	110	niu	niu	110	+ y +	my		
	Asn Val	Len		Δla	Len	Trp	Ara		Tle	Arα	Thr	Glu		T.eu	Trn		
137		115	0_4		Dou		120			9	* ***	125		Lea	115		
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140	His Ala	Leu	Tyr	Phe	Ala	Cys	Tyr	Glu	Lys	Leu	Lys	Lys	Thr	Leu	Ser		
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	gccggcg															180	
	ccggact															240	
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	attataa															420 480	
102	gcagggc	cly (Judat	good	الما لمان	Lall	Lycc	Lyc	JLace	jadā	aytt	_adda	add (yacat	Lyage	400	

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183			70				75					80			
	Val Ala Gly		Glu His	Cys	Val		\mathtt{Tyr}	Pro	Ile	Asp	-	Val			
185	r m) .	85			_	90	_			_	95	_			
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187		100	T		105	-1 -	3	m 1	a 1	110		(11)			
189	Asn Val Leu 115	GIU AIA	Leu Trp	_	TTE	тте	Arg	Thr		GTĀ	Leu	Trp			
	Arg Pro Met	Ara Clu	Lon yan	120	mb re	A 1 a	Πh ν	C1++	125	C1	Dwo	λl ₂			
191	130	AIG GIY	135	Val	1111	АІа	1111	140	АІа	СТУ	PIO	Ald			
	His Ala Leu	Tur Phe		Tur	Glu	T.vc	T.e.n		T.vc	Thr	Leu	Sor			
	145	Tyr The	150	111	GIU	Lys	155	шуз	цуз	T 111	пец	160			
	Asp Val Ile	His Pro		Asn	Ser	His		Ala	Asn	Glv	Ala				
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	ggcgcagggc c												180		
∠⊥4 215	agtgatgtaa to	ccaccctg	g gggcaa	itago	cat	attg	cca	atgg	tgcg	gc.	cgggt	gtgtg	240		
2 T D	gcaacattac t	ccatgatg	c agccat	.gaac	cct	.gcgg	aag	cggt	caaç	jca (gagga	ıtgcag	300		



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233					5					10					15			
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237	_		35					40			_		45					
	Tyr		Ala	Cys	Tyr	Glu		Leu	Lys	Lys	Thr		Ser	Asp	Val	Ile		
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241						. 70	_	_			75	_				80		
	Ala	Thr	Leu	Leu		Asp	Ala	Ala	Met		Pro	Ala	Glu	Val	Val	Lys		
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	GIn	Arg	Met		Met	Tyr	Asn	Ser		Tyr	His	Arg	Val		Asp	Cys		
245	**- 1			100		0.1	_	-1	105		_,		_,	110	_	_		
	val	Arg		vaı	Trp	GIn.	Asn		GIŸ	Ala	GLY	Ala		Tyr	Arg	Ser		
247		m 1	115	a 1	T	m 1	30.4	120		_	-1	~ 1	125		'			
249	TAT	130	THE	GIII	Leu	Tnr		Asn	vaı	Pro	Pne		Ата	тте	His	Pne		
	Mo+		Птт	Cl.	Dha	T 011	135	c1	mi a	Dh.	3	140	C1 -	7	7	Ф		
	145	THE	T.ĀT.	GIU	Pne		GIn	GIU	HIS	РПЕ		Pro	GIN	Arg	Arg	_		
		Dro	Con	C 0 T	ni a	150	T 0.1	Com	C1	7 1 n	155	71.	a 1	× 7	17 7	160		
253	ASII	PIO	ser	ser	165	val	neu	261	СТА		Cys	Ата	СТУ	Ald	Val	Ald		
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	Cln	Clu	cor		λ1 ₂	Lou	λαν	Cor		т1.	m b so	C1	TT i a	190	Thr	G1		
257				ьеu		цец		200		TTE	1111	СТА	205		TIIT	GIY		
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	225	1 116	Ary	OT A	, ur	230	AT a	AT 9	val	116	235	GTII	116	FIO	261	240		
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VERIFICATION SUMMARY

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 $\hbox{L:}13~\text{M:}270~\text{C:}~\text{Current Application Number differs, Replaced Current Application No}\\ \hbox{L:}13~\text{M:}271~\text{C:}~\text{Current Filing Date differs, Replaced Current Filing Date}$